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(54) **LIGHTING SYSTEM FOR AN OVEN APPLIANCE**

(71) Applicant: **General Electric Company**, Schenectady, NY (US)

(72) Inventors: **Christopher Lee Hettinger**, Louisville, KY (US); **Justin Tyler Brown**, Louisville, KY (US); **Edward LaVoisier Muhammad**, Ringgold, GA (US)

(73) Assignee: **Haier US Appliance Solutions, Inc.**, Wilmington, DE (US)

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F25D 27/00 (2006.01)
F24C 15/00 (2006.01)

(52) **U.S. Cl.**
CPC ***F24C 15/008*** (2013.01)

(58) **Field of Classification Search**
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See application file for complete search history.

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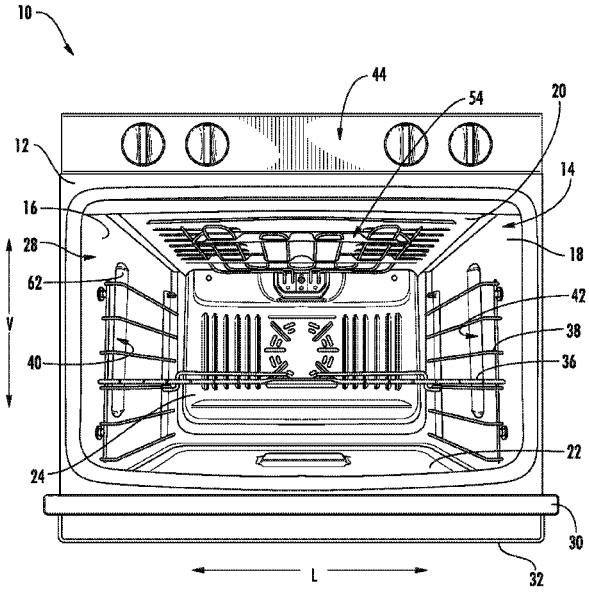
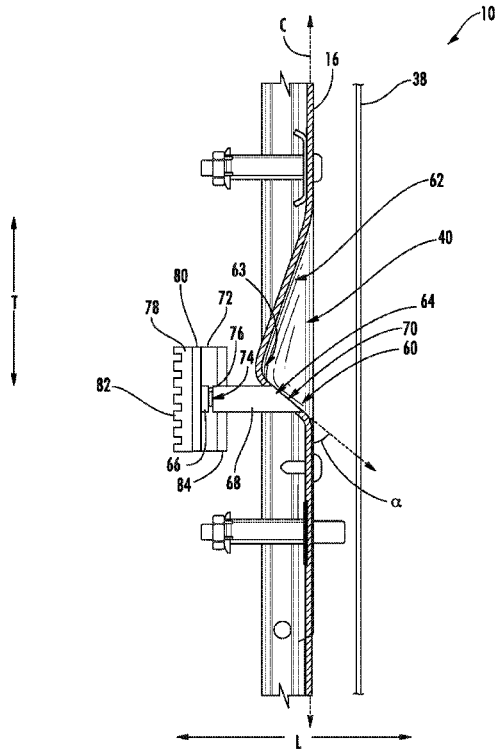
Primary Examiner — Thomas M Sember
(74) *Attorney, Agent, or Firm* — Dority & Manning, P.A.

(57) **ABSTRACT**

An oven appliance including a cabinet and a lighting system is provided. The cabinet defines a cooking chamber and includes a first wall and a second wall spaced along a lateral direction. The first wall defines a central plane (extending in a vertical direction and a transverse direction) and a protrusion. The protrusion extends outwardly from the central plane in a direction away from the second wall. The lighting system includes a portion positioned adjacent to a near section of the protrusion, the near section of the protrusion being closer to a cooking chamber opening than a far section of the protrusion. The lighting system may thus be obstructed from view generally along the central plane of the first wall as viewed from the cooking chamber opening.

20 Claims, 6 Drawing Sheets





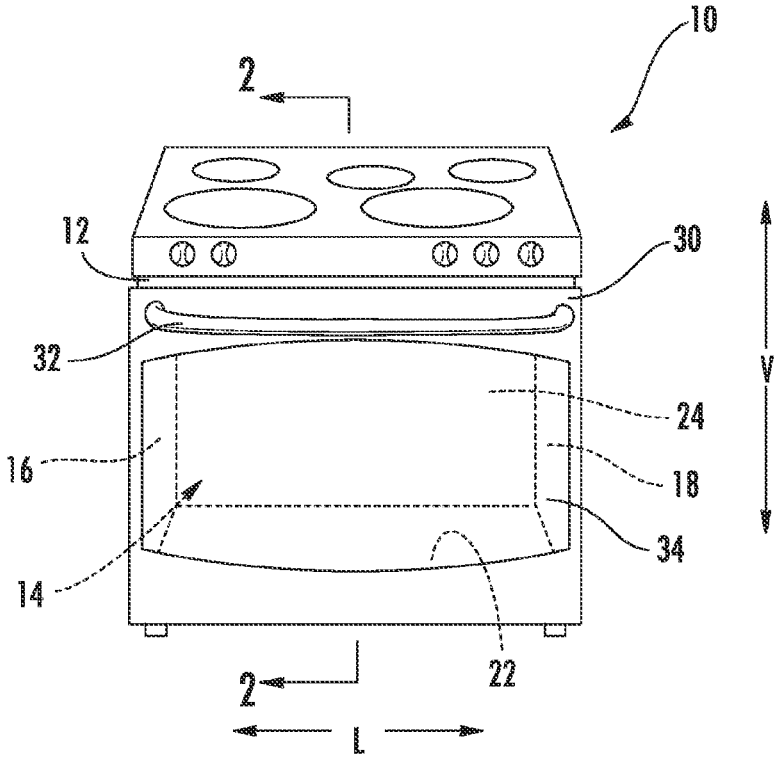

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FIG. 1

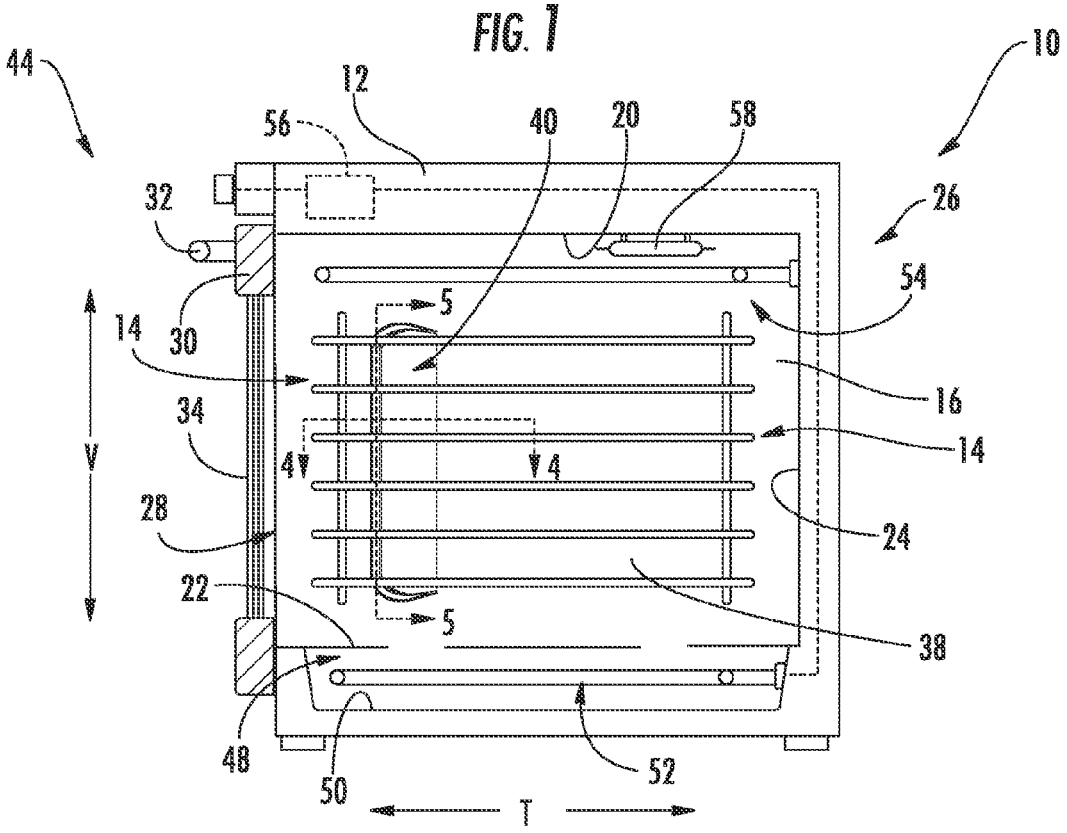
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FIG. 2

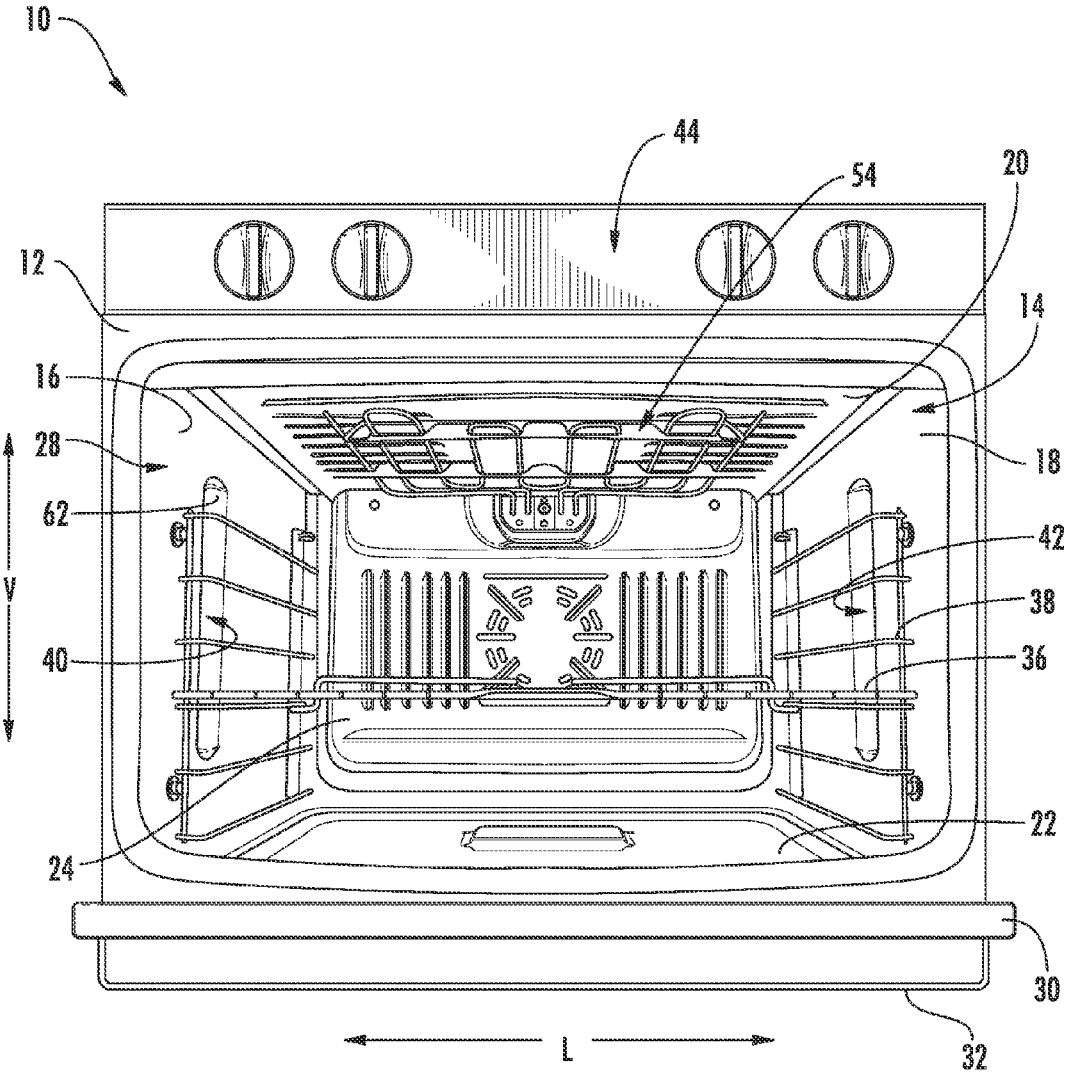

FIG. 3

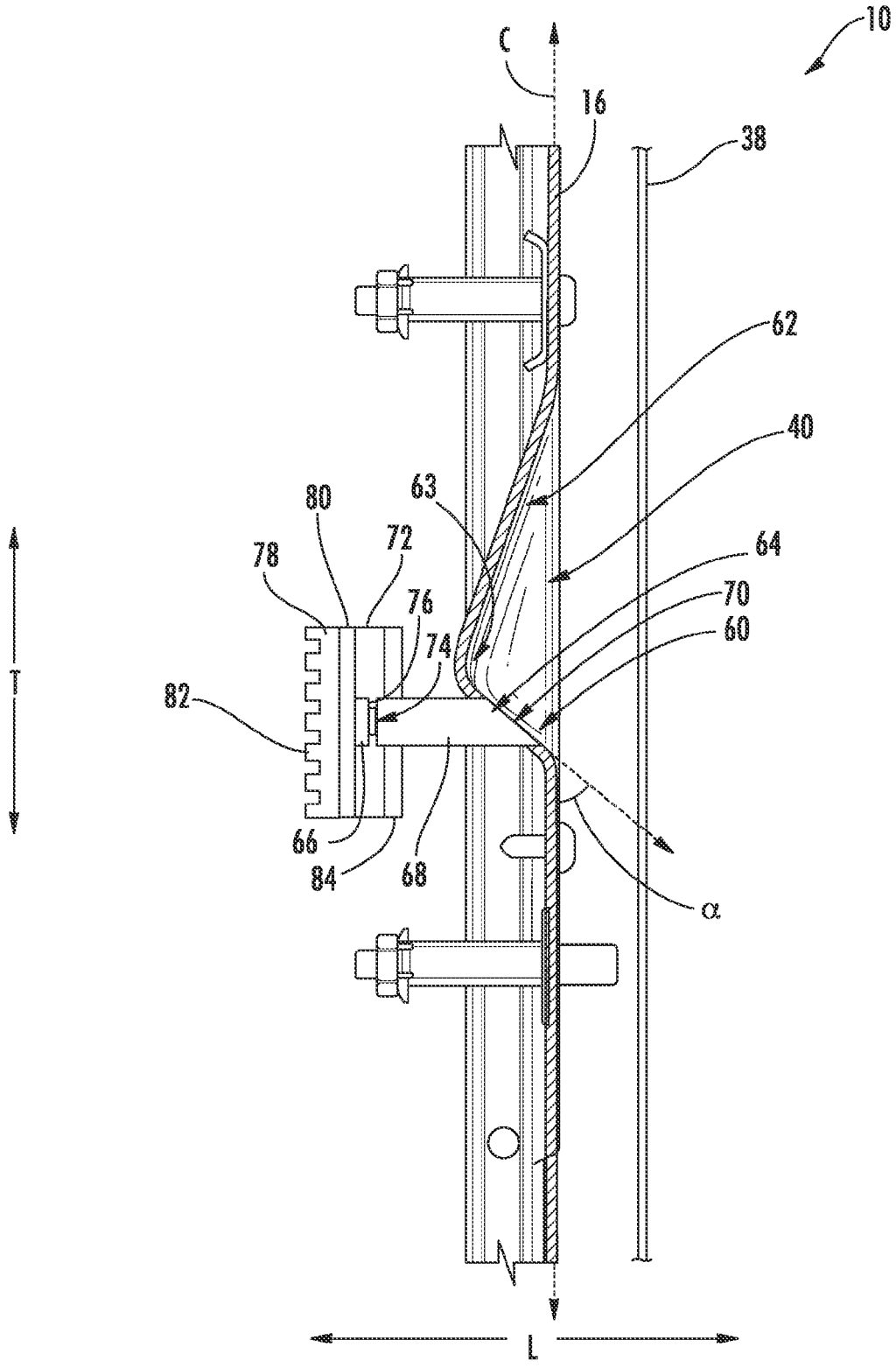

FIG. 4

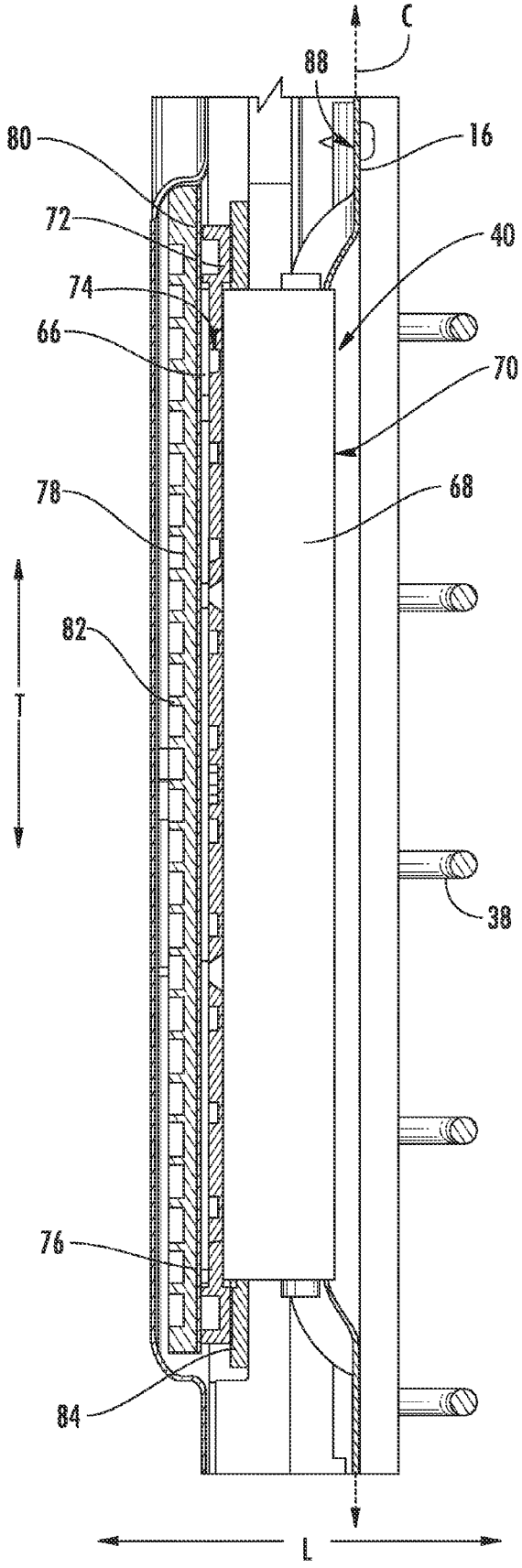

FIG. 5

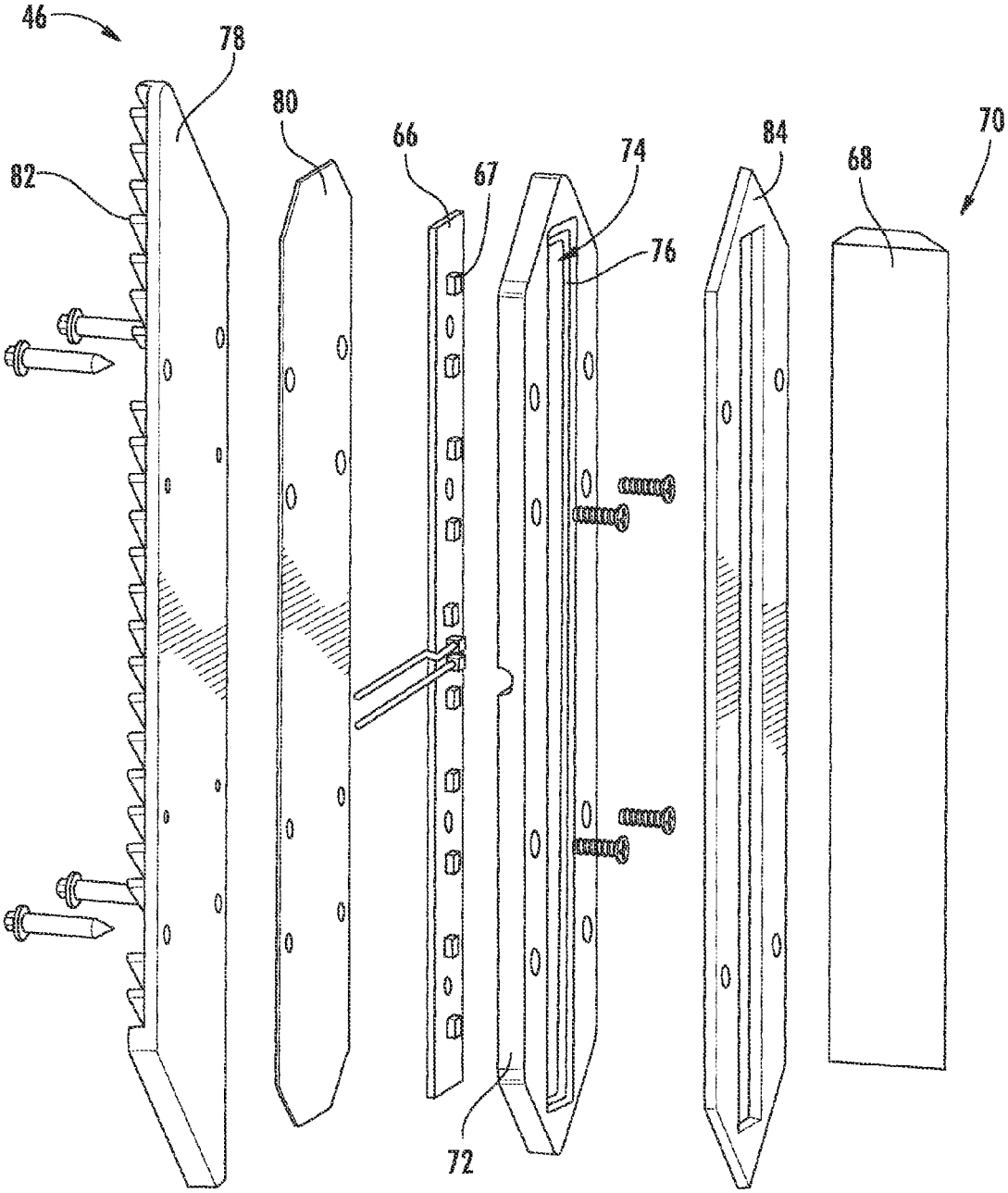

FIG. 6

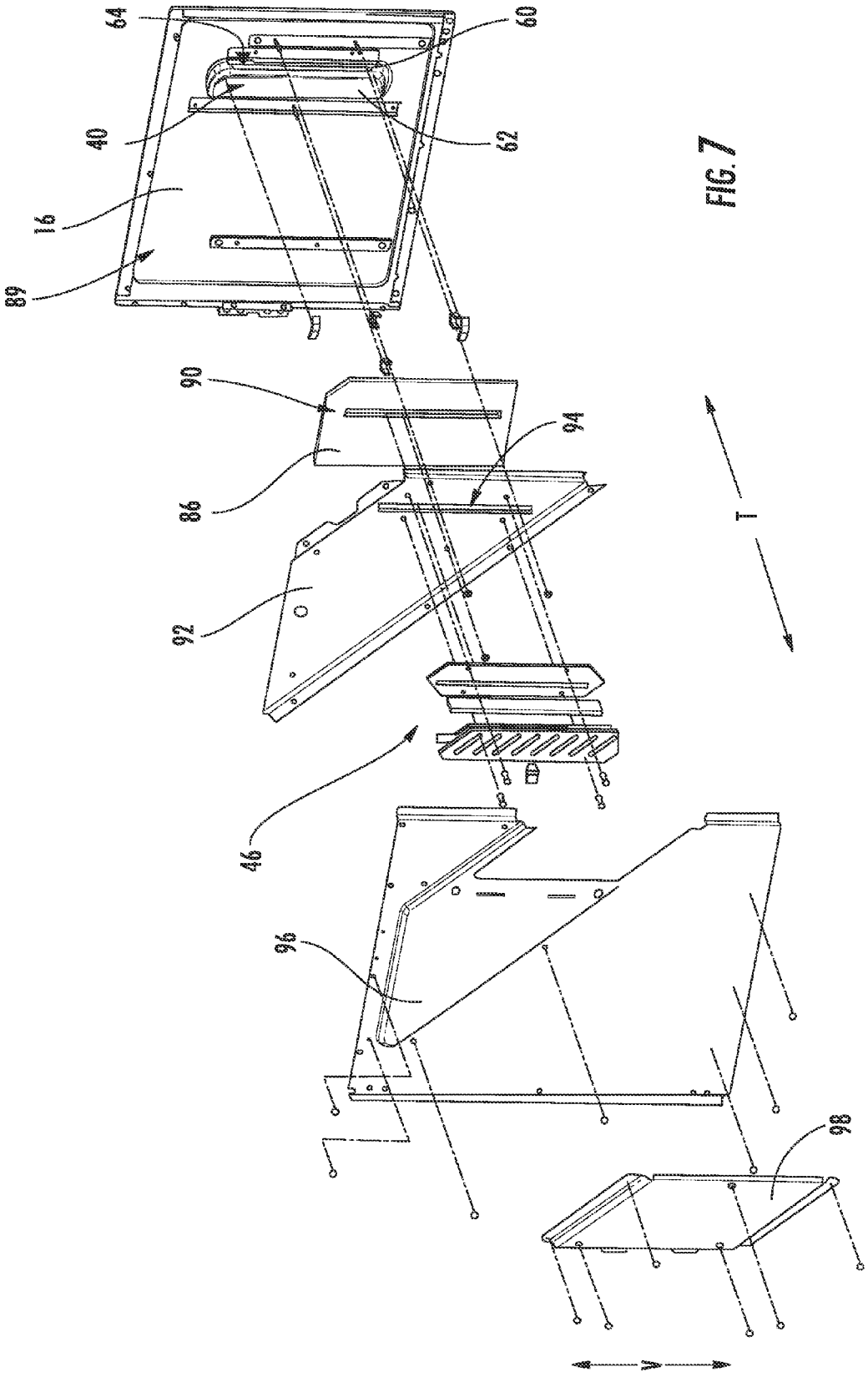

FIG. 7

LIGHTING SYSTEM FOR AN OVEN APPLIANCE

FIELD OF THE INVENTION

The present disclosure relates generally to oven appliances, or more particularly to lighting systems for oven appliances.

BACKGROUND OF THE INVENTION

Conventional residential and commercial oven appliances generally include a cabinet that defines a cooking chamber for receipt of food items for cooking. Access to the cooking chamber is generally provided through an oven door. Additionally, heating elements are positioned within the cooking chamber to provide heat to any food items located therein. The heating elements can include, for example, radiant heating elements, such as a bake heating element positioned at a bottom of the cooking chamber and/or a broil heating element positioned at a top of the cooking chamber.

Oven appliances typically also include a light positioned within the cooking chamber to allow a user to, e.g., monitor the food items in the cooking chamber during cooking operations. The light is generally positioned on a back wall or a top wall of the cabinet defining the cooking chamber. However, with such a configuration, when a user opens the oven door of the oven appliance to insert or remove one or more food items, the light may be directed into the user's eyes, making it more difficult to see inside the oven chamber.

Accordingly, a lighting system for an oven appliance that could illuminate the cooking chamber of the oven appliance without being directed into the eyes of a user would be useful.

BRIEF DESCRIPTION OF THE INVENTION

Aspects and advantages of the invention will be set forth in part in the following description, or may be apparent from the description, or may be learned through practice of the invention.

In accordance with one embodiment, an oven appliance is provided. The oven appliance defines a vertical direction, a lateral direction, and a transverse direction, each perpendicular to one another. Additionally, the oven appliance includes a cabinet defining a cooking chamber and a cooking chamber opening. The cooking chamber is configured for receipt of items to be cooked through the cooking chamber opening. The cabinet further includes a first wall and a second wall spaced along the lateral direction. The first and second walls at least partially define the cooking chamber. The first wall additionally defines a central plane extending in the vertical and transverse directions and a protrusion extending outwardly from the central plane in a direction away from the second wall. The protrusion includes a near section and a far section. The near section is positioned closer to the cooking chamber opening defined by the cabinet than the far section. The oven appliance also includes a lighting system with at least a portion positioned adjacent to or extending through the near section of the protrusion in the first wall such that the lighting system is obstructed from view generally along the central plane of the first wall from the cooking chamber opening.

In accordance with another embodiment, an oven appliance is provided. The oven appliance defines a vertical direction, a lateral direction, and a transverse direction, each perpendicular to one another. The oven appliance includes a cabinet defining a cooking chamber and a cooking chamber opening. The cooking chamber is configured for receipt of items to be cooked through the cooking chamber opening. The cabinet further includes a first wall at least partially defining the cooking chamber. The first wall additionally defines a central plane extending in the vertical and transverse directions and an elongated protrusion extending outwardly from the central plane of the first wall. The elongated protrusion includes a near section and a far section. The near section is positioned closer to the cooking chamber opening defined by the cabinet than the far section. The oven appliance also includes a lighting system with at least a portion positioned adjacent to or extending through the near section of the elongated protrusion in the first wall such that the lighting system is obstructed from view along the central plane of the first wall.

These and other features, aspects and advantages of the present invention will become better understood with reference to the following description and appended claims. The accompanying drawings, which are incorporated in and constitute a part of this specification, illustrate embodiments of the invention and, together with the description, serve to explain the principles of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

A full and enabling disclosure of the present invention, including the best mode thereof, directed to one of ordinary skill in the art, is set forth in the specification, which makes reference to the appended figures.

FIG. **1** provides a perspective view of an oven appliance in accordance with one embodiment of the present disclosure.

FIG. **2** provides a side cross-sectional view of the exemplary oven appliance of FIG. **1**.

FIG. **3** provides a front view of the exemplary oven appliance of FIG. **1** with an oven door in an open position.

FIG. **4** provides a top, cross-sectional view of a portion of the exemplary oven appliance of FIG. **1**, along line **4-4** of FIG. **2**.

FIG. **5** provides a side, cross-sectional view of a portion of the exemplary oven appliance of FIG. **1**, along line **5-5** of FIG. **2**.

FIG. **6** provides an exploded perspective view of a first lighting system of the exemplary oven appliance of FIG. **1**.

FIG. **7** provides an exploded view of a first side of the exemplary oven appliance of FIG. **1**.

DETAILED DESCRIPTION OF THE INVENTION

Reference now will be made in detail to embodiments of the invention, one or more examples of which are illustrated in the drawings. Each example is provided by way of explanation of the invention, not limitation of the invention. In fact, it will be apparent to those skilled in the art that various modifications and variations can be made in the present invention without departing from the scope or spirit of the invention. For instance, features illustrated or described as part of one embodiment can be used with another embodiment to yield a still further embodiment. Thus, it is intended that the present invention covers such modifications and variations as come within the scope of the appended claims and their equivalents.

Referring now to the Figures, FIG. **1** provides a perspective view of an oven appliance **10** according to an exemplary embodiment of the present subject matter. Additionally, FIG.

2 provides a section view of oven appliance **10** taken along line **2-2** of FIG. **1** and FIG. **3** provides a front view of the oven appliance **10** of FIG. **1**, with an oven door **30** in an open position.

Oven appliance **10** defines a vertical direction V, a lateral direction L, and a transverse direction T. The vertical, lateral and transverse directions V, L, T are mutually perpendicular and form an orthogonal direction system. As will be understood by those skilled in the art, oven appliance **10** is provided by way of example only, and the present subject matter may be used in any suitable oven appliance **10**. Thus, the present subject matter may be used with other oven or range appliance configurations, e.g., that define multiple interior cavities for the receipt of food and/or having different pan or rack arrangements than what is shown in FIGS. **2** and **3**. Additionally, the present subject matter may also be used with wall mounted oven appliances (not including a cooktop).

Oven appliance **10** includes an insulated cabinet **12** with an interior cooking chamber **14** defined by a plurality of walls. More particularly, cabinet **12** includes a first side wall **16** and a second side wall **18** spaced along the lateral direction L, a top wall **20** and a bottom wall **22** spaced along the vertical direction V, and a rear wall **24** positioned at a rear end **26** of oven appliance **10**. First side wall **16**, second side wall **18**, top wall **20**, bottom wall **22**, and rear wall **24** each at least partially define cooking chamber **14**.

Cabinet **12** additionally defines a cooking chamber opening **28** for access to cooking chamber **14**. More particularly, cooking chamber **14** is configured for the receipt of one or more food items to be cooked through cooking chamber opening **28**. Moreover, oven appliance **10** includes a door **30** rotatably mounted to cabinet **12**, e.g., with a hinge (not shown) for covering cooking chamber opening **28**. A handle **32** is mounted to door **30** and assists a user with moving door **30** between an open position (FIG. **3**) and a closed position (FIGS. **1** and **2**). For example, a user can pull on handle **32** to open door **30** and access cooking chamber **14**. Notably, although the door **30** is depicted as a "pull-down" door, in other embodiments, any other suitable door configuration may be provided. For example, in other embodiments, the oven appliance **10** may include a French door configuration.

Oven appliance **10** can include a seal (not shown) between door **30** and cabinet **12** that assists with maintaining heat and cooking fumes within cooking chamber **14** when door **30** is closed as shown in FIGS. **1** and **2**. Multiple parallel glass panes **34** provide for viewing the contents of cooking chamber **14** when door **30** is closed and assists with insulating cooking chamber **14**. A baking rack **36** (FIG. **3**) is positioned in cooking chamber **14** for the receipt of food items or utensils containing food items. Baking rack **36** is slidably received onto sliding rails **38** such that rack **36** may be conveniently moved into and out of cooking chamber **14** when door **30** is open.

As will be discussed in greater detail below, first side wall **16** defines a first protrusion **40** and second side wall **18** defines a second protrusion **42**. For the embodiment depicted, the first and second protrusions **40**, **42** are each elongated protrusions having a generally vertical orientation and positioned proximate to a front end **44** of the cooking chamber **14** along the transverse direction T. Additionally, oven appliance **10** includes a first lighting system **46** (see FIG. **4**) with at least a portion positioned adjacent first protrusion **40** in first wall **16** and a second lighting system (not shown) with at least a portion positioned adjacent second protrusion **42** in second wall **18**. More particularly, as may be appreciated from the view depicted in FIG. **3**, the first lighting system **46** and second lighting system are each positioned outside the cooking chamber **14** and configured with the first and second protrusions **40**, **42**, respectively, such that the first lighting system **46** and second lighting system are generally obstructed from view relative to a reference point outside the cooking chamber **14**. More particularly, for the embodiment depicted, the first and second lighting systems are generally not visible outside the cooking chamber **14**. Accordingly, during activation of the first and/or second lighting systems, light is not directed directly from the lighting systems into eyes of a user.

Referring still to FIGS. **1** through **3**, cabinet **12** further includes and defines a heating chamber **48**. In general, the heating chamber **48** is disposed below the cooking chamber **14**, such as along the vertical direction V. For example, heating chamber **48** is defined by the bottom wall **32** and a base wall **50** which are spaced apart along the vertical direction V. First side wall **16** and second side wall **18** further extend between the bottom wall **32** and base wall **50**, and are spaced apart along the lateral direction L. Rear wall **38** may additionally extend between the bottom wall **32** and base wall **42** as well as between the first side wall **16** and second side wall **18**. Heating chamber **48** is thus defined between the bottom wall **32**, base wall **42**, first side wall **16**, second side wall **18**, and rear wall **38**.

A bottom heating element **52**, e.g. a bake heating element, is disposed within the heating chamber **48**. In exemplary embodiments as illustrated, the bottom heating element **52** is an electric heating element, as is generally understood. Alternatively, the bottom heating element **52** may be a gas burner or other suitable heating element having another suitable heating source. Heating element **52** is used to heat cooking chamber **14** for both cooking and cleaning of range appliance **10**, as discussed herein.

Additionally, a top heating element **54**, e.g. a broil heating element, may be disposed within the cooking chamber **14**, such as adjacent top wall **30**. In exemplary embodiments as illustrated, the top heating element **54** is an electric heating element, as is generally understood. Alternatively, the top heating element **54** may be a gas burner or other suitable heating element having another suitable heating source. Heating element **54** may additionally be used to heat cooking chamber **14** for both cooking and cleaning of range appliance **10**, as discussed herein.

The operation of oven appliance **10** including heating elements **52** and **54** may be controlled by a processing device such as a controller **56**. Controller **56** may be in communication (via for example a suitable wired or wireless connection) to the heating elements **52**, **54** and other suitable components of the oven appliance **10**, such as a fan. By way of example, the controller **56** may include a memory and one or more processing devices such as microprocessors, CPUs or the like, such as general or special purpose microprocessors operable to execute programming instructions or microcontrol code associated with operation of appliance **10**. The memory may represent random access memory such as DRAM, or read only memory such as ROM or FLASH. In one embodiment, the processor executes programming instructions stored in memory. The memory may be a separate component from the processor or may be included onboard within the processor.

Such controller **56** may also be communication with a temperature sensor **58** that is used to measure temperature inside cooking chamber **14** and provide such measurements to the controller **56**. Temperature sensor **58** is shown (in FIG. **2**) in the top and rear of cooking chamber **14**. However, other

locations may be used and, if desired, multiple temperature sensors may be applied as well.

Controller **56** is operable to activate various cooking modes based on, for example, user selection thereof. For example, controller **56** may be operable to activate a preheat mode and one or more cooking modes, such as a bake mode and/or a broil mode. Preheat mode may generally be a mode in which the cooking chamber **14** is initially heated in preparation for a cooking mode, such as bake mode or broil mode. Cooking modes, such as bake and broil modes may variously be utilized to cook food items, etc. within the cooking chamber **14**. Heating element **52**, as well as heating element **54**, may be operable to heat the cooking chamber **14** during operation of the oven appliance **10** in, for example, a preheat mode and/or cooking mode.

Referring now to FIGS. **4** and **5**, the first side wall **16** and first lighting system **46** are shown in greater detail. More particularly, FIG. **4** provides a cross-sectional view of oven appliance **10** taken along line **4-4** of FIG. **2** and FIG. **5** provides a cross-sectional view of the oven appliance **10** taken along line **5-5** of FIG. **2**.

As is shown, the first side wall **16** additionally defines a central plane C extending in the vertical direction V and the transverse direction T. The first protrusion **40** in the first side wall **16** extends outwardly from the central plane C in a direction away from the second side wall **18**. Additionally, the protrusion **40** includes a near section **60** and a far section **62** separated by a crease **63**. The near section **60** is positioned closer to the cooking chamber opening **28** defined by the cabinet **12** than the far section **62**. Further, referring particularly to FIG. **4**, the near section **60** of the first protrusion **40** in the first wall **16** defines an angle α relative to the central plane C of the first wall **16**. For the embodiment depicted, the angle α is greater than or equal to about fifteen (15) degrees. It should be appreciated, however, that in other exemplary embodiments, the near section **60** of the first protrusion **40** in the first wall **16** may define any other suitable angle relative to the central plane C. For example, in other exemplary embodiments, the angle α may be greater than or equal to about thirty (30) degrees, or alternatively may be greater than or equal to about forty-five (45) degrees. It should be appreciated, that as used herein, terms of approximation such as "about" or "approximately" refer to being within a ten percent (10%) margin of error.

As stated, the oven appliance **10** further includes the first lighting system **46**. The first lighting system **46** includes at least a portion positioned adjacent to or extending through the near section **60** of the first protrusion **40** in the first wall **16**. The first lighting system **46** is positioned such that the first lighting system **46** is obstructed from view generally along the central plane C of the first wall **16** from the cooking chamber opening **28**. More particularly, for the embodiment depicted, near section **60** of the first protrusion **40** in the first wall **16** defines an opening **64** and a portion of the first lighting system **46** extends into the opening **64**. As may be most clearly seen in FIG. **5**, for the embodiment depicted, the opening **64** is an elongated opening having a generally vertical orientation. It should be appreciated, however, that in other exemplary embodiments, the opening **64** may have any other suitable shape or configuration.

Referring now also to FIG. **6**, providing an exploded perspective view of the first lighting system **46**, first lighting system **46** generally includes a light source **66** and an optical feature **68**. The light source **66** is positioned outside the cooking chamber **14** and spaced along the lateral direction L from the near section **60** of the first protrusion **40** in the first wall **16**. Additionally, the optical feature **68** extends between the light source **66** and the near section **60** of the first protrusion **40**. The light source **66** may therefore provide light through the opening **64** in the near section **60** of the first protrusion **40** into the cooking chamber **14** when activated. More particularly, for the embodiment depicted, the light source **66** is configured to provide light into the optical feature **68** when activated and the optical feature **68** is configured for directing such light from the light source **66** through the opening **64** and into the cooking chamber **14** when the lighting system **46** is activated.

The light source **66** depicted includes one or more light emitting diodes ("LEDs"). More particularly, as may be more clearly seen in FIGS. **5** and **6**, the light source **66** depicted includes an array of LEDs. Additionally, the optical feature **68** depicted is a piece of glass extending between the light source **66** and into and/or through the opening **64** in the near section **60** of the first protrusion **40**. Moreover, referring particularly to FIG. **4**, the optical feature **68** extends in a direction substantially perpendicular to the central plane C of the first side wall **16** and also defines an inside surface **70** exposed to the cooking chamber **14**. The inside surface **70**, for the embodiment depicted, extends in a plane substantially parallel to, and is substantially flush with, a plane defined by the opening **64** in the near section **60** of the first protrusion **40**.

In certain embodiments, the optical feature **68** may physically contact the light source **66**, or alternatively, the optical feature **68** may be positioned in close proximity to the light source **66**, such as in the exemplary embodiment depicted. More particularly, for the embodiment depicted, the first lighting system **46** includes a housing **72** defining an opening **74** configured to receive the light source **66** on one side and the optical feature **68** on the other. The housing **72** includes a flange **76** extending inwardly around an inside perimeter of the opening **74**, contacting a portion of the optical feature **68** on one side and a portion of the light source **66** on the other side.

The first lighting system **46** further includes a heat sink **78** in thermal communication with the light source **66** and an electrical insulation layer **80** disposed between heat sink **78** and light source **66**. Heat sink **78** includes a plurality of fins **82** to assist in dissipating heat and may be formed of any material having a relatively high thermal conductivity. Additionally, electrical insulation layer **80** may be comprised of any material having a relatively high electrical resistivity (i.e., a relatively low electrical conductivity).

The first lighting system **46** depicted further includes a thermal insulation layer **84** positioned between the light source **66** and the first wall **16** of the cabinet **12** and disposed on an opposite side of the light source **66** and housing **72** from the heat sink **78**. Thermal insulation layer **84** may be formed of a material having a relatively low thermal conductivity and thus may prevent at least a portion of the heat from the cooking chamber **14** from reaching the light source **66**. Moreover, although not depicted, the oven appliance **10** may additionally include one or more additional layers of insulation adjacent to first wall **16** of the cabinet **12** and, e.g., surrounding one or more portions of the first lighting system **46**, such as the optical feature **68** of the first lighting system **46**.

Such a configuration may allow for a lighting system **46** having a light source **66** including one or more LEDs, which previously have not been acceptable for providing light to a cooking chamber **14** of an oven appliance **10** due to a relatively low nominal operating temperature range for LEDs. More particularly, such configuration may maintain a temperature of the light source **66** below the nominal

operating temperature range for LEDs, despite the relatively high temperatures of the cooking chamber **14**, especially during a "clean" mode.

It should be appreciated, however, that the first lighting system **46** described herein is by way of example only. For example, in other exemplary embodiments, the light source **66** may include any other suitable lights, such as incandescent or halogen lights. Additionally, the optical feature **68** may be any material capable of directing light from the light source **66** into the cooking chamber **14**, and may have any other suitable shape or configuration for directing light in such a manner. Moreover, in still other exemplary embodiments, the first lighting system **46** may include other features not described herein, or alternatively may not include one or more of the features described herein (e.g., the heat sink **78**, the electrical insulation layer **80**, and/or the thermal insulation layer **84**).

Referring now to FIG. **7**, an exploded view of a first side of oven appliance **10** is provided. As shown, for the embodiment depicted, a first insulation layer **86** is provided adjacent to an outside surface **88** of first side wall **16**. More particularly, the first insulation layer **86** covers the first protrusion **40** in the first wall **16**. The first insulation layer **86** includes an elongated slot **90** that aligns with the elongated opening **64** in the near section **60** of the first protrusion **40** in the first wall **16**.

Additionally, an inner panel **92** is provided over the first insulation layer **86** and attached to the first side wall **16**. The inner panel **92** also includes an elongated slot **94** that aligns with elongated slot **90** in the first insulation **86** layer and elongated opening **64** in the near section **60** of the first protrusion **40** in the first wall **16**. The first lighting system **46** is configured to attach to the inner panel **92**. When attached to the inner panel **92**, the optical feature **68** of the first lighting system **46** extends through the elongated slots **90**, **94** of the first insulation layer **86** and the inner panel **92**, respectively, and into the elongated opening **64** in the near section **60** of the first protrusion **40** in the first wall **16** (see FIGS. **4** and **5**).

An outer panel **96** is also provided, extending over and attaching to the inner panel **92**. The outer panel **96** at least partially defines a cooling duct with the inner panel **92** configured to receive a cooling airflow from, e.g., a front of the oven appliance **10** during operation of the oven appliance **10**. As depicted, the heat sink **78** of the first lighting system **46** is positioned at least partially within the cooling duct of the oven appliance **10** such that the heat sink **78** is exposed to the cooling airflow during operation of the oven appliance **10**. Such a configuration may further reduce a temperature of the light source **66** of the first lighting system **46** during operation of the oven appliance **10**.

Moreover, the oven appliance **10** includes a removable panel **98** attached to the outer panel **96** over the first lighting system **46**. The removable panel **98** forms, at least in part, the cooling duct. The removable panel **98** may be removed from the outer panel **96** to allow a user to, e.g., conduct any maintenance operations on the first lighting system **46**.

Referring back briefly to FIG. **3**, it should be appreciated that the exemplary oven appliance **10** additionally includes the second lighting system. The second lighting system and second side wall **18** may be configured in substantially the same manner as the first lighting system **46** and first side wall **16**. For example, the second side wall **18** may also define a central plane extending in the vertical and transverse directions V, T with the second protrusion **42** extending outwardly from the central plane of the second side wall **18** in a direction away from the first side wall **16**. The second protrusion **42** in the second side wall **18** may also include a near section and a far section, with the near section positioned closer to the cooking chamber opening **28** defined by the cabinet **12** than the far section. Additionally, at least a portion of the second lighting system may be positioned adjacent to or extend through an opening in the near section of the second protrusion **42** in the second wall **18**, such that the second lighting system is obstructed from view generally along the central plane of the second wall as viewed from the cooking chamber opening **28**.

It should be appreciated that the oven appliance **10** depicted in FIGS. **1** through **7** and described herein is by way of example only. In other exemplary embodiments, the oven appliance **10** may have any other suitable configuration. For example, in other exemplary embodiments the oven appliance **10** may only include a single lighting system, such as the first lighting system **46**. Additionally, or alternatively, in other exemplary embodiments, the oven appliance **10** may include one or more lighting systems configured with protrusions in, e.g., the top wall **20**, the bottom wall **22**, or the rear wall **24**. Further, in still other exemplary embodiments, the oven appliance **10** may include a plurality of lighting systems configured with a corresponding plurality of protrusions defined in, e.g., first side wall **16** and/or second side wall **18**. Moreover, in still other exemplary embodiments, the first and/or second protrusions **40**, **42** in the first and/or second side wall **16**, **18** may have any other suitable shape for orientation. For example, in other exemplary embodiments, the first and/or second protrusions **40**, **42** may define a generally circular shape.

Furthermore, it should be appreciated that in still other exemplary embodiments, the first lighting system **46** may not be positioned outside the oven cavity **14**. For example, in certain exemplary embodiments, the first lighting system **46** may be an incandescent or halogen light mounted on the near section **60** of the protrusion **40** of the first side wall **16**.

This written description uses examples to disclose the invention, including the best mode, and also to enable any person skilled in the art to practice the invention, including making and using any devices or systems and performing any incorporated methods. The patentable scope of the invention is defined by the claims, and may include other examples that occur to those skilled in the art. Such other examples are intended to be within the scope of the claims if they include structural elements that do not differ from the literal language of the claims, or if they include equivalent structural elements with insubstantial differences from the literal languages of the claims.

What is claimed is:

1. An oven appliance defining a vertical direction, a lateral direction, and a transverse direction, each perpendicular to one another, the oven appliance comprising:

a cabinet defining a cooking chamber and a cooking chamber opening, the cooking chamber configured for receipt of items to be cooked through the cooking chamber opening, the cabinet further comprising a first wall and a second wall spaced along the lateral direction, the first and second walls at least partially defining the cooking chamber, the first wall additionally defining a central plane extending in the vertical and transverse directions and a protrusion extending outwardly from the central plane in a direction away from the second wall, the protrusion including a near section and a far section, the near section positioned closer to the cooking chamber opening defined by the cabinet than the far section; and

a lighting system with at least a portion positioned adjacent to or extending through the near section of the protrusion in the first wall such that the lighting system is obstructed from view generally along the central plane of the first wall from the cooking chamber opening;

wherein the near section of the protrusion in the first wall defines an opening, and wherein the lighting system includes a light source spaced apart from the opening in the near section of the protrusion in the first wall along the lateral direction away from the cooking chamber.

2. The oven appliance of claim **1**, wherein the near section of the protrusion in the first wall defines an angle relative to the central plane of the first wall greater than or equal to about fifteen degrees.

3. The oven appliance of claim **1**, wherein the near section of the protrusion in the first wall defines an angle relative to the central plane of the first wall greater than or equal to about thirty degrees.

4. The oven appliance of claim **1**, wherein the light source is configured to provide light through the opening in the near section of the protrusion in the first wall from a location remote from the cooking chamber.

5. The oven appliance of claim **4**, wherein the lighting system further includes an optical feature extending between the light source and the opening in the near section of the protrusion in the first wall, the optical feature directing light from the light source into the cooking chamber.

6. The oven appliance of claim **5**, further comprising:

a heat sink; and

an electrical insulation layer positioned between the heat sink and the light source.

7. The oven appliance of claim **4**, wherein the light source includes one or more light emitting diodes.

8. The oven appliance of claim **1**, wherein the protrusion in the first wall is an elongated protrusion having a generally vertical orientation.

9. The oven appliance of claim **1**, wherein the protrusion in the first wall is positioned proximate a front end of the cooking chamber along the transverse direction.

10. The oven appliance of claim **1**, wherein the second wall also defines a central plane extending in the vertical and transverse directions and a second protrusion extending outwardly from the central plane in a direction away from the first wall, the second protrusion including a near section and a far section, the near section positioned closer to the cooking chamber opening defined by the cabinet than the far section, and wherein the oven appliance further includes a second lighting system with at least a portion positioned adjacent to or extending through the near section of the second protrusion in the second wall such that the second lighting system is obstructed from view generally along the central plane of the second wall from the cooking chamber opening.

11. The oven appliance of claim **1**, further comprising:

a heating element positioned within the cooking chamber.

12. An oven appliance defining a vertical direction, a lateral direction, and a transverse direction, each perpendicular to one another, the oven appliance comprising:

a cabinet defining a cooking chamber and a cooking chamber opening, the cooking chamber configured for receipt of items to be cooked through the cooking chamber opening, the cabinet further comprising a first wall at least partially defining the cooking chamber, the first wall additionally defining a central plane extending in the vertical and transverse directions and an elongated protrusion extending outwardly from the central plane of the first wall, the elongated protrusion including a near section and a far section, the near section positioned closer to the cooking chamber opening defined by the cabinet than the far section; and

a lighting system with at least a portion positioned adjacent to or extending through the near section of the elongated protrusion in the first wall such that the lighting system is obstructed from view along the central plane of the first wall;

wherein the near section of the protrusion in the first wall defines an opening, and wherein the lighting system includes a light source spaced apart from the opening in the near section of the protrusion in the first wall along the lateral direction away from the cooking chamber.

13. The oven appliance of claim **12**, wherein the near section of the elongated protrusion in the first wall defines an angle relative to the central plane of the first wall greater or equal to than about fifteen degrees.

14. The oven appliance of claim **12**, wherein the near section of the elongated protrusion in the first wall defines an angle relative to the central plane of the first wall greater than or equal to about thirty degrees.

15. The oven appliance of claim **12**, wherein the light source is configured to provide light through the opening in the near section of the elongated protrusion in the first wall from a location remote from the cooking chamber.

16. The oven appliance of claim **15**, wherein the lighting system further includes an optical feature extending between the light source and the opening in the near section of the elongated protrusion in the first wall, the optical feature directing light from the light source into the cooking chamber.

17. The oven appliance of claim **15**, wherein the light source includes one or more light emitting diodes.

18. The oven appliance of claim **12**, wherein the protrusion in the first wall is positioned proximate a front end of the cooking chamber along the transverse direction.

19. The oven appliance of claim **12**, wherein the cabinet of the oven appliance further comprises a second wall spaced from the first wall along the lateral direction, wherein the elongated protrusion extends outwardly from the central plane of the first wall in a direction opposite the second wall.

20. The oven appliance of claim **19**, wherein the second wall also defines a central plane extending in the vertical and transverse directions and a second elongated protrusion extending outwardly from the central plane in a direction away from the first wall, the second elongated protrusion also including a near section and a far section, the near section positioned closer to the cooking chamber opening defined by the cabinet than the far section, and wherein the oven appliance further includes a second lighting system with at least a portion positioned adjacent to or extending through the near section of the second elongated protrusion in the second wall such that the second lighting system is obstructed from view generally along the central plane of the second wall from the cooking chamber opening.

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